

Title (en)

MEMBRANE REACTOR AND PROCESS FOR THE PRODUCTION OF A GASEOUS PRODUCT WITH SUCH REACTOR

Title (de)

MEMBRANREAKTOR UND VERFAHREN ZUR HERSTELLUNG EINES GASFÖRMIGEN PRODUKTS MIT EINEM SOLCHEN REAKTOR

Title (fr)

RÉACTEUR À MEMBRANE ET PROCÉDÉ POUR LA PRODUCTION D'UN PRODUIT GAZEUX À L'AIDE D'UN TEL RÉACTEUR

Publication

**EP 2675556 B1 20180321 (EN)**

Application

**EP 12705503 A 20120217**

Priority

- NL 2006245 A 20110218
- NL 2012050088 W 20120217

Abstract (en)

[origin: WO2012112046A1] The invention provides an integrated catalyst and membrane reactor for the production a predetermined gas such as hydrogen. The reactor comprises a gas flow channel, comprising a plurality of alternating catalyst sections and membrane sections, wherein each catalyst section comprises a catalyst bed and each membrane section comprises a plurality of membranes, and wherein the membranes are selectively permeable for the predetermined gaseous species.

IPC 8 full level

**B01J 8/00** (2006.01); **B01J 8/04** (2006.01); **B01J 19/00** (2006.01); **B01J 19/24** (2006.01); **C01B 3/38** (2006.01)

CPC (source: BR EP KR US)

**B01J 7/00** (2013.01 - BR US); **B01J 8/009** (2013.01 - BR EP US); **B01J 8/04** (2013.01 - KR); **B01J 8/0465** (2013.01 - BR EP US); **B01J 19/00** (2013.01 - KR); **B01J 19/006** (2013.01 - BR EP US); **B01J 19/24** (2013.01 - KR); **B01J 19/2475** (2013.01 - BR EP US); **B01J 19/2485** (2013.01 - BR EP US); **C01B 3/16** (2013.01 - BR EP US); **C01B 3/38** (2013.01 - BR EP KR US); **B01J 2208/00504** (2013.01 - EP US); **B01J 2208/0053** (2013.01 - EP US); **B01J 2208/025** (2013.01 - EP US); **C01B 2203/0233** (2013.01 - EP US); **C01B 2203/0238** (2013.01 - EP US); **C01B 2203/0261** (2013.01 - EP US); **C01B 2203/0283** (2013.01 - EP US); **C01B 2203/041** (2013.01 - EP US); **C01B 2203/1047** (2013.01 - EP US); **C01B 2203/1058** (2013.01 - EP US)

Cited by

AT522323A4; AT522323B1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**WO 2012112046 A1 20120823**; BR 112013021001 A2 20180626; BR 112013021001 B1 20190820; CN 103459010 A 20131218; CN 103459010 B 20151223; EP 2675556 A1 20131225; EP 2675556 B1 20180321; JP 2014515693 A 20140703; JP 5944415 B2 20160705; KR 101862320 B1 20180529; KR 20140027118 A 20140306; NL 2006245 C2 20120821; NO 2675556 T3 20180818; US 2013323162 A1 20131205; US 8865117 B2 20141021

DOCDB simple family (application)

**NL 2012050088 W 20120217**; BR 112013021001 A 20120217; CN 201280018094 A 20120217; EP 12705503 A 20120217; JP 2013554411 A 20120217; KR 20137024836 A 20120217; NL 2006245 A 20110218; NO 12705503 A 20120217; US 201214000042 A 20120217